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ABSTRACT

This study examines 240 preschool teachers' self-reported literacy beliefs and practices. Participants taught three- and four-year-olds in publicly funded preschools that are part of the Virginia Preschool Initiative program. Teachers completed a Preschool Literacy Practices Checklist that asked about their beliefs and practices regarding literacy, as well as teacher and classroom characteristics. The work experience and education of the individuals surveyed were comparable to those of national samples of elementary school teachers. The majority of teachers included literacy instruction in their daily plans, endorsed literacy acquisition as a goal of their teaching, and used many approaches to promote early literacy. Their beliefs about the importance of 16 literacy-related skills were organized around three factors: alphabet knowledge, word and story knowledge, and verbal language. Teachers varied most widely in their beliefs about the importance of alphabet knowledge for development of four-year-olds' literacy. Teachers whose preparation included greater coursework in reading endorsed beliefs and used practices more closely associated with promoting verbal language skills and analytic phonics. These results have implications for theories of literacy development and the role of public preschools in promoting literacy. (Contains 40 references, 6 tables of data, and the survey instrument.) (Author/RS)

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CIERA Inquiry 2: Home and School
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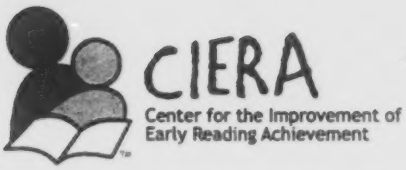

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Preschool Teachers' Self-Reported Beliefs and Practices About Literacy Instruction

Kathleen A. Burgess, Kristin A. Lundgren, John Wills Lloyd, and Robert C. Pianta
University of Virginia

As many as 40% of America's third graders cannot comprehend grade-level text (Campbell, Donahue, Reese, & Phillips, 1996). For these students, the gap widens as the school years progress (Stanovich, 1986). Children who come from environments that are not language- and print-rich are considered at-risk for reading failure (Adams, 1990; Snow, Burns, & Griffin, 1998) and are likely to score well below their peers on measures of achievement in elementary school (Hart & Risley, 1995). Snow et al. argued that literacy acquisition begins prior to entering school and relies on "letter knowledge, phonological sensitivity, familiarity with the basic purposes and mechanisms of reading, and language ability" (Snow et al., 1998, p. 137). The preschool years, particularly formal preschool experiences, are viewed by many as a way of ensuring that children gain prerequisite literacy skills and progress in their literacy (Snow, Barnes, Chandler, Goodman, & Hemphill, 1991). Furthermore, indicators of possible reading difficulties can be identified as early as preschool (Adams, 1990), making ages three and four years a key period for identifying children who need supplemental instruction and enhancing the literacy experiences of those children, thus reducing the chances of later illiteracy.

In this context, state education agencies have established publicly financed preschools as a means of elevating literacy and other outcomes for their school-entry populations. As of 1997, 26 states had implemented state-wide prekindergarten programs ("All students achieving at high levels," 1999). In states such as Georgia, these programs are or will be offered on a universal basis, whereas in other states (e.g., Virginia), programs target children whose backgrounds disadvantage them in the educational arena. Thus, a considerable investment is aimed at enhancing preschool children's school-related skills through publicly supported preschool programs. To support this effort, people concerned with early childhood literacy need to develop a clear and detailed understanding of matters such as preschool teachers' beliefs that are likely to affect students' outcomes. What are preschool teachers' beliefs about literacy instruction? What literacy practices do they report using in the classroom?

Literacy acquisition begins in early childhood with developmentally appropriate reading and writing experiences prior to kindergarten. Reading and writing develop in synchrony as young children engage in activities that promote verbal and written language (Morris, 1981; Sulzby & Teale, 1991). Although the best predictor of successful reading is facility in letter naming (Adams, 1990; Bruck, Genesse, & Caravolas, 1997; Ehri, 1997); letter recognition is not sufficient to promote success in reading. Children must learn to make the connection between print and spoken sound, and a prerequisite to this skill is phonological awareness (Juel, 1988; Perfetti & Zhang, 1996).

Reading is intricately related to linguistic, not visual, processing (Vellutino, 1987) and requires phonological awareness (the ability to detect and manipulate the sounds in spoken words). Phonological awareness encompasses skills in isolating, blending, and deleting phonemes. In particular, skill in segmenting phonemes is a strong predictor of reading success (Adams, 1990; Byrne, Fielding-Barnsley, Ashley, & Larsen, 1997; Lundberg, Frost, & Petersen, 1988), and it can be fostered prior to kindergarten by engaging children in such activities as listening games, rhyming games, syllable clapping, and sentence segmentation (Fernandez-Fein & Baker, 1997; Lundberg et al., 1988, Pressley, 1998). These games engage children in playing with verbal language and build the foundation for mapping sounds to letters and words and learning the purpose and form of print (Pressley, 1998).

Children also come to understand that print conveys a message (Downing, 1986) and is used for many purposes (e.g., to inform, to persuade, to entertain). Prior to entering kindergarten, children begin to construct meaning from print (Downing, 1986) and learn the conventions of print, including directionality, concept of word, and punctuation (Clay, 1993). Through direct contact with books, modeling by adults, and handling books while pretending to read, they also learn more sophisticated concepts about the structure of written language (Adams, 1990). Encounters with books help inform children about the structure of written language (Pressley, 1998) and are among the most frequently used forms of preliteracy activities in which children and adults engage.

Adams (1990) estimated that children from literate home environments enter first grade with over 1,000 hours of storybook reading and an equal amount of time engaging in other literacy experiences involving language, reading, and writing activities. However, many groups of children also enter first grade with no more than 25 hours of storybook reading and 200 hours of language activities. These groups of children begin school at a disadvantage and are precisely the groups of children for whom publicly funded preschool programs are designed.

Despite widespread agreement about the importance of early literacy experiences, the degree to which preschools should engage in literacy instruction is debated (Bredekamp & Rosegrant, 1991). In a jointly issued statement, the International Reading Association and the National Association for the Education of Young Children acknowledged that reading and writing abilities develop prior to formal schooling and that the early childhood years are an important time for developing literacy. "Failing to give children literacy experiences until they are school-age can severely limit the reading and writing levels they ultimately attain" (International Reading Association & National Association for the Education of Young Children, 1998, p. 197). The statement lists specific suggestions for developmentally

appropriate literacy activities for preschoolers, including listening to and discussing stories, attempting reading and writing, identifying some letters and letter-sound relationships, and participating in verbal language games (IRA & NAEYC, 1998). Thus, there is an emerging consensus that literacy instruction is an integral part of early intervention programs that are intended to promote early school success. Although there continues to be a lively debate about the nature of literacy instruction for young children, there is nonetheless agreement that attendance in prekindergarten programs should enhance children's literacy competencies, particularly in those skill areas described previously.

Research on emerging public preschool programs, particularly as related to literacy, is just beginning. One way to understand the content and nature of these programs, as a first step toward examining their effectiveness, is to sample teachers' reports about their beliefs about and practices in literacy instruction. DeFord (1985) was among the first to examine the relationship between teacher beliefs and instructional practices in reading. DeFord's Theoretical Orientation to Reading Profile (TORP) consisted of 28 statements relating to teachers' beliefs about reading and teachers' practices, to determine teachers' orientation toward phonics, skills, and whole language. Initial results using the TORP indicated a high correlation ($r = .86$, $p = .001$) between teachers' self-reported beliefs and practices and their observed practices. Studies since DeFord's support the notion that teachers' beliefs are at least moderately correlated with their instructional practices (Charlesworth, Hart, Burts, & Hernandez, 1991; McMahon, Richmond, & Reeves-Kazelskis, 1998; Reutzel & Sabey, 1996; Richardson, Anders, Tidwell, & Lloyd, 1991).

Charlesworth, Hart, Burts, Thomasson, Mosley, and Fleege (1993) surveyed 204 kindergarten teachers about developmentally appropriate literacy practices as established by NAEYC. Teachers indicated that they valued developmentally appropriate practices to a greater extent than was observed in their teaching practices. Self-reports were more congruent with classroom practices when teachers indicated how important a particular belief or practice was to them.

Baumann, Hoffman, Moon, and Duffy-Hester (1998) reported data from 1,207 preK–5 grade teachers who responded to a mail survey about reading instruction and classroom practices. Results suggested that teachers believe in a balanced, eclectic approach that involves surrounding children with literature and teaching skills. Baumann et al. concluded that "results from other recent surveys involving elementary teachers' beliefs and practices about reading instruction have corroborated results from observational studies, so there is some indication that field studies and mail surveys provide comparable information" (p. 645).

The present study was designed to investigate teachers' self-reported literacy beliefs and practices and the development of preschool children's literacy behaviors in a publicly funded program for disadvantaged four-year-olds. The study examined questions concerning teacher characteristics, their beliefs about literacy acquisition and instruction, their self-reported practices, and the relations between their self-reported beliefs and practices.

Method

Participants

Teachers in the Virginia Preschool Initiative (VPI) participated in the study. The VPI is a statewide program funded by the Commonwealth of Virginia's Department of Education and is designed to meet the needs of children who are from low-income families and are not served by Head Start. VPI program requirements state:

1. Preschools must operate at least six hours per day.
2. Enrollment may not exceed 16 children per class.
3. A ratio of eight children to one adult must be maintained 100% of operation time.
4. Staff must be trained in early childhood development.
5. Programs must have a specific, preapproved curriculum.
6. Communication must exist between home and the program to include home visits and family literacy programs.
7. Health services, social services, and transportation should be provided for children as needed (Commonwealth of Virginia Department of Education, 1997).

All teachers involved in the VPI program were invited to participate in the study (N = 363). Follow-up letters and phone calls were used to encourage teacher participation. The 240 (66%) who participated represented 45 different counties throughout Virginia. The majority of their classrooms met the specified criteria for VPI programs on teacher-student ratio, hours of operation, and an emphasis on parental participation. All but two of the classrooms reported having a teaching assistant for all or part of the day. Additionally, over half of the classrooms claimed at least one parent volunteer per week, with 18% reporting more than one volunteer per week.

Instrument

The Preschool Literacy Practices Checklist (PLPC) was derived from existing literacy surveys such as the "U.S. Elementary Reading Instruction Survey (Baumann, Hoffman, Moon, & Duffy-Hester, 1996) and the "Classroom Literacy Environment" tool (Torgesen & Rashotte, 1994a, 1994b). The items on the PLPC are intended to sample teachers' beliefs and self-reported practices on early literacy acquisition (see Appendix A). In addition to assessing teachers' beliefs and practices, the PLPC requests information about the teachers' educational background, teaching experience, ethnicity, and classroom characteristics (e.g., student enrollment, length of school day, number of aids and parent volunteers). Prior to distribution, four early childhood educators

reviewed the instrument and offered suggestions about content and format. The survey was revised accordingly.

The PLPC contains three sections: (a) teacher background and characteristics, (b) classroom characteristics, and (c) approach to teaching. The third section, Approach to Teaching, includes four subsections: (a) description of literacy philosophy, (b) teacher beliefs about literacy instruction, (c) reported classroom literacy practices, and (d) parent involvement. In the first subsection, teachers reported which strategies and approaches they value. In the next two subsections, teachers rated their beliefs and practices using a 4-point Likert scale (i.e., 0 = unimportant, 1 = a little important, 2 = pretty important, and 3 = essential); in addition, they reported the time they spent engaging in certain reading and language arts activities. In the final subsection (the parent involvement section), teachers selected statements that best reflect their approach to involving parents and caregivers in both literacy and general classroom activities.

Procedures

The Virginia Department of Education provided a contact list for VPI programs throughout the Commonwealth. Data collection packets were distributed to all VPI teachers. This packet included a letter from the Virginia Department of Education that endorsed the study and an invitation to participate in the study. Those teachers who chose to participate completed the PLPC in exchange for an honorarium. Follow-up letters and phone calls were made to encourage participation. Data collection began in mid-October and continued through early December 1997.

Data Analysis

We analyzed data in relation to the major questions, providing a descriptive analysis of teacher and classroom characteristics, teaching philosophy and approach, beliefs, and self-reported practices in terms of percentages, means, and standard deviations. To assess common features of teachers' beliefs and practices, we performed separate factor analyses using principal axis methods with varimax rotations. We selected the number of factors using eigenvalues > 1.0 and dropped any item that had a loading of less than .30. Additionally, we compared selected teacher characteristics and the derived belief and practice factors using analysis of variance or correlations with alpha set at $p < .05$.

Results

Teacher and Classroom Characteristics

The participants are well-educated, experienced preschool teachers. The majority of the teachers had a bachelor's degree or higher and reported having formal instruction in reading. Additionally, most teachers had taught for three years or more, with the mean years of experience being eight. Unlike the student population, the majority of whom are African American, most of the teachers are White. Table 1 provides a summary of teacher characteristics.

Table 1: Descriptive Data for Characteristics of Virginia Preschool Initiative Teachers*

Teaching Experience	Level of Education	Level of Ethnicity
0-3 years	< Four-year degree	White
26%	2%	67%
3-14 years	Bachelor's degree	African American
52%	74%	30%
15-31 years	Master's degree	Other
22%	24%	3%

* N = 240 teachers

The VPI classrooms share the following common characteristics: low teacher-student ratio, a full-day program, and parental involvement. Class enrollment was capped at 16 for all the classrooms. Additionally, all but two of the classrooms reported having a teaching assistant for all or part of the day. Over half of the classrooms reported at least one parent volunteer per week, with 18% reporting more than one volunteer per week. The average length of the school day was 6.5 hours, with only one half-day program.

Teachers' Beliefs

To illustrate the teachers' philosophy on literacy instruction, we listed 11 statements characterizing approaches to literacy acquisition and directed the teachers to select 3 statements that best reflected their approach. Table 2 shows the 11 statements and the corresponding percentages of teachers who endorsed each item. Overall, most teachers endorsed eclectic, literature-based approaches. The least frequently endorsed statement referred to using basal materials to teach reading. The responses appear to reflect the teachers' belief that they provide support for literacy and the acquisition of preliterate skills but do not provide reading instruction, per se.

Table 2: Statements About Literacy and Percentage of Teachers Endorsing Each Statement

Statement	% of Teachers*
I surround students with literature and literacy experiences in order for the children to become skillful, fluent readers.	86%
I combine skills development with literature and language-rich activities.	63%
I use a literature-based approach to reading instruction. I use trade books (e.g., library books, big books) almost exclusively.	54%
I use multiple perspectives and sets of materials when teaching reading.	33%
I am a whole language teacher.	25%
Phonics need to be taught directly to beginning readers in order for them to become skillful, fluent readers.	14%
I am a phonics teacher.	6%
I combine trade books with basal materials to teach students to read.	3%
My teaching methods and reading materials are traditional.	3%
Teaching students to decode words is one of my most important goals.	2%
I use basal reading materials to teach students to read.	1%

* Percentages do not sum to 100% because the teachers selected more than one statement

Factor analysis of the 16 questions about teacher beliefs yielded three factors. These factors accounted for 62% of the total variance in teacher beliefs. Table 3 shows the statements that loaded on each factor and their means. Factor 1 (alphabet knowledge) accounted for 40% of the variance and included items (name letters, write letters and words, recognize letters in text, say sounds and letters, and write own names) that described beliefs related to the importance of alphabet knowledge for literacy development. The second factor (knowledge of words and stories) accounted for 15% of the variance and included items about recognizing words in text, separating words into sounds, recognizing basic sight words, writing a story, and identifying elements in a story. The third factor (verbal language) accounted for 7% of the variance, and the items that loaded on this factor (tell own story, respond to stories orally, tell a story from a picture, relate to personal experiences, and understand word meanings) emphasize both verbal and written language. The relative amounts of variance accounted for by these three factors indicate that teachers varied the most in their beliefs about alphabet knowledge items and the least about their beliefs about verbal language.

Teachers' Practices

Table 3: Factor Loadings from Principal Axis Factor Analysis of Teachers' Beliefs

Beliefs	Mean*	Alphabet Knowledge	Word and Story Knowledge	Verbal Language
Factor 1: Alphabet Knowledge				
Name letters	2.05	.810		
Write letters or words	1.45	.729		
Recognize letters in text	1.80	.708		
Say sounds and letters	1.60	.667		
Write own name	2.18	.620		
Factor 2: Word and Story Knowledge				
Recognize words in text	1.25		.662	
Separate words into sounds	0.90		.607	
Recognize basic sight words	1.32		.607	
Write a story	0.93		.597	
Identify elements in story	1.65		.517	
Factor 3: Verbal Language				
Tell own story	2.73			.777
Respond to stories orally	2.78			.736
Tell a story from picture	2.66			.702
Relate to experiences	2.47			.688
Understand word meanings	2.27			.416

* Based upon a 4-point Likert scale with a range of 0–3.

Teachers reported on the amount of time they engaged in four literacy-promotion activities. All teachers reported spending some time (30 minutes, on average) each day reading aloud to students. Ninety-nine percent reported that they engaged in reading activities to promote or support literacy acquisition (e.g., reading activities, student response, verbal language activities, songs, rhymes). Only half of the teachers reported engaging in what they consider reading instruction (e.g., reading groups, skills activities). Table 4 lists the percentage of teachers who reported engaging in each literacy activity and the average amount of time they reported spending on them.

Table 4: Amount of Time Engaged in Literacy Promotion Activities*

Literacy Promotion Activity	% of Teachers Engaging in the Activity*	Time in Minutes Mean (SD)
Reading aloud to students	100%	26 (11.63)
Language arts instruction and practice	99%	41 (42.00)
Applying, practicing, and extending reading skills	73%	17 (16.35)
Reading instruction	51%	11 (13.69)

* Some teachers reported that they do not spend any time engaging in the activity

Factor analysis of the 19 questions that asked teachers to rate the importance of certain literacy-related instructional practices yielded four factors, which accounted for 56% of the total variance. Factor 1 (word study) accounted for 27% of the variance and included items about comparing words and word parts in heard words, categorizing heard words based on sound patterns, comparing words and word parts in printed words, categorizing printed words based on spelling patterns, and discussing word meanings. These activities promote the understanding of words by actively engaging students in the exploration and comparison of words and word parts. The second factor (alphabet knowledge) accounted for 14% of the variance and included practices such as having students name letters, find letters in words, and write letters or words. On the third factor (story), which accounted for 9% of the variance, the practices that loaded (draw pictures, then tell story; draw pictures to illustrate a story; and dictate a story, then read it aloud) reflect activities related to the understanding of story structure and meaning. Factor 4 (motivation and interest) accounted for 6% of the variance. It included practices (e.g., having children listen to an adult read aloud; reciting rhymes, songs, and poems; reading or looking at books independently) that appear to be designed to promote children's interest in or motivation for reading. The relative amount of variance accounted for by these factors indicate that teachers varied most in the extent to which they reported using word-study activities. They varied the least in their reports about story-related practices and interest and motivation practices. Table 5 shows the extent to which teachers consider particular practices important and the practices that loaded on each factor.

Table 5: Factor Loadings From Principal Axis Factor Analysis of Teachers' Practices

Items/Beliefs	Mean*	Word Study	Alphabet Knowledge	Story	Interest and Motivation
Factor 1: Word Study					
Compare words and word parts in heard words	.89	.703			
Categorize heard words based on sound patterns	.74	.700			
Compare words and word parts in printed words	.51	.694			
Categorize printed words based on spelling patterns	.37	.629			
Discuss word meanings	1.93	.482			
Factor 2: Alphabet Knowledge					
Name letters	1.89		.813		
Find letters in words	1.54		.760		
Write letters or words	1.57		.614		
Factor 3: Story					
Draw pictures then tell a story	2.32			.731	
Draw pictures to illustrate a story	2.22			.699	
Dictate a story then read it aloud	1.64			.500	
Factor 4: Interest and Motivation					
Listen to an adult read aloud	2.90				.749
Recite rhymes, songs, and poems	2.92				.458
Read or look at books independently	2.81				.406

* Based upon a 4-point Likert scale with a range of 0–3

Teacher Characteristics, Beliefs, and Practices

To examine how teacher's characteristics were related to their beliefs and practices, we compared the derived beliefs and practices factors and the following teacher characteristics: years of teaching experience, level of teacher education, and ethnicity. Table 6 summarizes the analysis.

Table 6: Comparisons of Teacher Characteristics and the Beliefs and Practices Factors

	Level of Teacher Education*			Years Teaching Experience	Ethnicity†	
	< 4 years	Bachelor's	Master's	Pearson correlation	African-American	White
Alphabet Knowledge Beliefs	8.75	9.10	8.96	-.083	9.96‡	8.6**
Word and Story Knowledge Beliefs	6.00	4.56	4.83	.042	5.32‡	4.38
Verbal Language Beliefs	11.00‡	12.65‡	13.8**	.069	12.15‡	13.2
Word-Study Practices	3.00	4.42	4.41	.154*	4.24	4.52
Alphabet Knowledge Practices	4.50	5.10	4.70	-.069	5.73‡	4.67
Story Practices	7.25	6.23	5.96	.155*	6.24	6.20
Interest Motivation Practices	8.75	8.64	8.64	.020	8.62	8.64

* When comparing level of teacher education and the factors, significant differences were found on the verbal language factor. Post-hoc analysis revealed difference between < four-year degree and master's, -2.80, p = .027, and between four-year degree and master's, -1.14, p = .001.

† Significant differences were found on four of the factors when comparing these factors with ethnicity. On the alphabet knowledge beliefs factor, differences were significant at p = .010. Differences on the word and story knowledge factor were significant at p = .033. Differences on the verbal language factor were significant at p = .0001. On the alphabet knowledge practices factor, significance was p = .002.

‡ p = .05

** p = .01

Using analysis of variance (ANOVA), a comparison between the level of teachers' education and their beliefs and practices factors yielded significant differences among the groups on their beliefs about the importance of verbal language in acquisition of literacy $F(2, 225) = 7.96$, $p < .0001$. The Tukey post-hoc analysis revealed that teachers with a master's degree placed a stronger emphasis on verbal language than did teachers with less than a four-year degree or with a bachelor's degree, HSD = 2.80, p = .027, and between teachers with a four-year degree and teachers with a master's degree, HSD = -1.14, p = .001. Level of teacher preparation was not related to any other beliefs or practices factors.

The number of years teachers had taught was related to their emphasis on story-related practices. Teachers with more teaching experience tended to value activities that involved telling or illustrating a story more than their less-experienced counterparts, $r = .155$, $p < .05$. Additionally, the more experienced teachers placed greater emphasis on word-study activities, $r = .154$, $p < .05$.

Finally, African American teachers placed greater value on items related to alphabet knowledge (both in their beliefs about literacy acquisition and their practices) and items related to word and story knowledge. White teachers placed greater emphasis on their belief in the role verbal language plays in literacy acquisition, $F(221, 1) = 14.44$, $p < .001$.

Discussion

This survey of preschool teachers' literacy practices and beliefs in a preventive intervention program for four-year-olds from disadvantaged backgrounds is informative in a number of ways. First, it reveals the academic emphasis in these early childhood programs. Second, it highlights the extent to which these teachers view literacy promotion as one of their goals. Third, it describes the self-reported beliefs and self-reported practices these teachers use in the service of literacy promotion. On the whole, these data provide important descriptive information on these early childhood contexts and have implications for a range of policies and practices.

The VPI classrooms do not represent typical child-care for four-year-olds. A study of child-care centers throughout the United States revealed data on the quality and characteristics of preschool programs such as Head Start. This report indicates daily operating time (mean = 11 hours); staff:child ratio (ranging from 1:10 to 1:20); teacher level of education (29% held a bachelor's degree or more); ethnicity of staff (70% White); and ethnicity of children (66% White; Cost, Quality, and Child Outcomes in Child-Care Centers Team, 1995). In contrast, early childhood teachers in classes for four-year-olds sponsored by the Virginia Preschool Initiative are well-educated, experienced, and have taken reading courses. These classrooms and teachers, however, are similar to kindergarten classrooms represented in a recent national survey (Early, Pianta, & Cox, 1999) and the School and Staffing Survey (National Center for Educational Statistics, 1995). Early et al. found that kindergarten teachers had an average of 11 years of experience, and approximately half held a master's degree. Similar to these formal kindergarten classrooms, the majority of VPI classrooms are full-day programs, contain 16 children, follow an approved curriculum, and utilize aides and volunteers.

Teachers in this study reported an eclectic approach (Baumann et al., 1998) to literacy development that has at its core an emphasis on surrounding children with literature. They supported a classroom climate that is print-rich and encourages children to play with verbal and written language (Adams, 1990; Clay, 1993; Snow et al., 1998). Letter naming, letter production, and mapping sounds to letters are not considered to be of primary importance to most teachers, and teachers were quite varied in their endorsement of the importance of these activities. This view is at odds with research that indicates that letter naming and mapping letters to sounds is a key component of early literacy development (Adams, 1990; Downing, 1986; Ehri, 1997). Teachers endorsed telling a story, orally responding to a story, and relating stories to one's own experience as important verbal language skills for their preschool classrooms. This belief is consistent with research that stresses the importance of experiences with verbal language for early literacy (Adams, 1990; Fernandez-Fein & Baker, 1997; Lundberg et al., 1988). The high proportion of teacher endorsement of such skills may reflect teachers' accurate judgment of the need that children attending their classrooms have for them.

Some of the teachers' beliefs varied significantly as determined by their own level of education. For example, teachers in this sample who had more extensive formal education consistently rated verbal language as of greater importance at the preschool level than their peers in the study.

Significant differences existed on all three belief factors and one practice factor (alphabet knowledge) according to teacher ethnicity. African American teachers placed greater emphasis on alphabet knowledge (e.g., naming letters, saying sounds), whereas White teachers placed greater emphasis on verbal language activities (e.g., responding to stories, telling a story from a picture). Other researchers have noted similar distinctions between these groups (Delpit, 1988; Snow et al, 1998).

The results suggest that teachers' beliefs are internally consistent with their self-reported practices (DeFord, 1985; Charlesworth et al., 1993). Teachers reported devoting time to reading aloud to children and to engaging them in language arts activities. Most teachers indicated that they engaged children in activities such as drawing pictures to illustrate a story; listening to an adult read aloud; reciting rhymes, songs, and poems; and looking at books independently (Adams, 1990; Snow et al., 1998). However, most preschool teachers do not emphasize activities such as categorizing spoken words by sound patterns, categorizing printed words by spelling patterns, or comparing word parts in printed words.

These preschool teachers' beliefs and self-reported practices appeared to align roughly with current theory about literacy acquisition. These teachers universally agreed that literacy activities are an important component of the preschool program, but they varied on the amount of time they devoted to literacy skills and on the practices that they value. Teachers did not report letter naming as an essential component of the preschool program, yet the ease with which children can name letters is one of the best predictors of reading success (Adams, 1990; Bruck et al., 1997; Ehri, 1997; Lyon, 1997). Although most teachers reported using verbal language activities (e.g., reciting poems and jingles), they did not emphasize other phonological awareness activities such as segmentation. Research on segmenting suggests that preschoolers should be taught this skill (Adams, Foorman, Lundberg, & Beeler, 1998; Byrne et al., 1997). Mapping sounds to letters is another aspect of literacy development that teachers reported to be of little importance at the preschool level. Taken together, these results indicate that phonological processing is not emphasized in these teachers' classrooms, despite its importance in early literacy development. The joint statement by the International Reading Association and the National Association for the Education of Young Children (1998) on developmentally appropriate practices for preschoolers suggests that preschoolers should learn to identify some letters and make some letter-sound matches, a conclusion supported by the National Institute of Child Health and Human Development's report on the need to address the connections between letters and sounds explicitly (Lyon, 1997).

Preschool teachers reported that minimal time is devoted to writing activities in their classrooms. This practice aligned with the teachers' belief that writing is unimportant for preschoolers. Clay (1975) reported that the developmental nature of writing suggests that preschool children should engage in writing activities. Engaging in writing, even if the products do not conform to conventions, is considered appropriate for preschoolers (International Reading Association & National Association for the Education of Young Children, 1998). Although key literacy components are missing from these preschool classrooms, teachers indicated that they are devoting instructional time to reading aloud to children and to discussing conventions of print (Adams, 1990; Clay, 1993). These experiences form a base for fostering

young children's literacy, but they may not be sufficiently intensive or explicit to ensure success in school (Snow et al., 1998).

In summary, teachers view literacy as an essential component of these publicly funded preschool programs, although there is considerable variation in the extent to which teachers' beliefs and self-reported practices reflect the importance of phonological processing and skills for early literacy development. These results have implications for policy and practice in early education and teacher preparation. Policies and teacher training that focus on the importance of developmentally appropriate literacy practices in a preschool environment may serve to enhance the literacy skills of four-year-olds. Further, this study provides a foundation for examining the effectiveness of literacy instruction for the very large number of children enrolled in preschool programs.

Appendix

Preschool Literacy Practices Checklist

University of Virginia

The purpose of this checklist is to help us understand how classrooms differ from each other. The checklist asks questions about your educational background, your approach to teaching, and your methods of helping children learn to read, and write as well as the composition of your classroom.

Your answers to these questions are confidential. We will keep them in locked cabinets and they will not be made available to your supervisors or others. In any reports we prepare, you will not be identified by name or in any way that will allow someone to know the identity of people who gave specific answers to questions.

Personal

Please provide the following information about your background and preparation for teaching.

Last four digits of your social security number (for our record keeping only):	_____
City or county in which your classroom is located:	_____
What is the name of your school?	_____
Write the total number of years you have spent teaching in the Virginia Preschool Program (VPI). (If this is your first year, write zero).	_____ years
Write the total number of years you have spent teaching children ages 3-8. Include the years you spent teaching VPI. (If this is your first year, write zero).	_____ years
Write the number of years you have spent working as the lead or senior teacher. Include the years your have spent teaching VPI classes. (If this is your first year, write zero).	_____ years

This checklist was developed by John Wills Lloyd, Robert C. Pianta, Kathleen Burgess, and Kristen Lundgren of the University of Virginia. Parts of it were drawn from the work of A, B, and C. Please provide credit if you use it.

Circle the number that best describes your racial or ethnic background.

1. African-American 2. Asian 3. Caucasian 4. Hispanic
5. Native-American 6. other _____(please specify)

Circle the number in front of the highest teacher education program that you have completed (circle only one):

1. no teacher education program
2. an associates program in child care
3. special non-degree program (e.g., Montessori training)
4. a four-year BA or BS program
5. a five-year BA or BS program
6. a post-baccalaureate program
7. a master's degree program
8. education specialist degree
9. a doctoral degree

Write the number of formal (semester- or quarter-long college classes) courses you had in teaching reading and language arts. _____ courses

Classroom

Please provide the following information about your classroom.

Circle the letter in front of the word that best describes the location of your school. a. rural b. suburban c. urban

How many students are enrolled in your class? _____(write number of children)

How long is your usual school day? _____(write number of hours)

For how many hours per day do you have an aide? _____(write number of hours)

How many parents or others volunteer in your classroom for 1 hour or more than a week? _____(enter number of volunteers)

Read each statement about the instructional level of your students. Then, on the line next to the statement write the number of your students who perform at the level described but not higher. The numbers you enter should add up to the total number of students in your classroom.

_____Children have little interest in books, phrases, sentences, or letters.
_____Children are interested in books, phrases, sentences, or letters.
_____Children can identify letters and follow along when a book is read.
_____Children can read parts of books that have been read to them.
_____Children can read books independently at the primer level.

Circle the number indicating how much you use the following strategies for teaching: I work with	Usually	Some	A little	None
a. The entire class at once	3	2	1	0
b. Small groups of students who are at about the same skill level	3	2	1	0
c. Small groups of students who have similar interests	3	2	1	0
d. Individual students	3	2	1	0

Of these four approaches, which describes the approach you use most often? _____(Write the letter for the strategy.)

Approach to Teaching

Please answer these questions about your philosophy of teaching, particularly as it relates to children's acquisition of literacy.

Circle the letter next to **ONE** statement. Which one better describes your perspective about reading programs for young children?

a. A child's physical, intellectual, and emotional maturity are directly related to success in reading and writing. It is a teacher's job to provide students with appropriate activities to support or enhance their readiness for reading.

b. Children can benefit from early, meaningful reading and writing experiences. It is a teacher's job to provide students with appropriate activities that will enable them to understand the functions and forms of literacy and to grow into conventional forms of reading and writing.

How important is it to teach the following literacy strategies? Circle your choice for each item.

	Essential	Pretty Important	A Little Important	Unimportant
a.Decoding (phonic) strategies	3	2	1	0
b.Looking for meaningful parts of words	3	2	1	0
c.Using context to decide how to pronounce an unknown word	3	2	1	0
d.Recognizing words by sight	3	2	1	0

Circle the letters for the three statements that correspond best with your beliefs about teaching reading and learning to read.

a. My teaching methods and reading materials are traditional.

b. I use multiple perspectives and sets of materials when teaching reading.

c. I am a whole language teacher.

d. I am a phonics teacher.

e. I combine skills development with literature and language-rich activities.

f. Teaching students to decode words is one of my most important goals.

g. Phonics need to be taught directly to beginning readers in order for them to become fluent, skillful readers.

h. I use a literature-based approach to reading instruction. I use trade books (i.e. library books, big books) almost exclusively.

i. I use basal reading materials to teach students to read.

j. I combine trade books with basal materials to teach students to read.

k. I surround students with literature and literacy experiences in order for the children to become fluent, skillful readers.

Estimate the relative total time you spend each day devoted to the following reading and language arts activities.

___ minutes each day reading aloud from books to students

___ minutes each day for reading instruction (i.e., reading group, skill activities)

___ minutes each day for students applying, practicing, and extending reading skills (i.e., reading aloud, reading activities, student response)

___ minutes each day for language instruction and practice (e.g., oral language activities, songs, rhymes, etc.)

Please estimate the number of your students whom you listened to as they read aloud individually for 3 or more minutes today (or on the most recent school day).

___ (write number of students)
out of
___ (write total number of students in your class)

Circle the number indicating the importance of each of the following goals for the language arts or literacy program in your classroom.

How important is it to teach your students to	Essential	Pretty Important	A little Important	Not Important
a. Name letters?	3	2	1	0
b. Say the sounds that letters and letter combinations make?	3	2	1	0
c. Understand the meaning of words?	3	2	1	0
d. Write letters and words?	3	2	1	0
e. Understand concepts about print (e.g., read left to right)?	3	2	1	0
f. Recognize basic sight words?	3	2	1	0
g. Write their own names?	3	2	1	0
h. Write a story?	3	2	1	0
i. Respond to stories by talking?	3	2	1	0
j. Relate their experiences to those in a storybook?	3	2	1	0
k. Tell their own stories?	3	2	1	0
l. Tell a story from pictures?	3	2	1	0
m. Recognize letters in a book, story, or other text?	3	2	1	0
n. Recognize words in a book, story, or other text?	3	2	1	0
o. Separate words into sounds?	3	2	1	0
p. Identify elements of a story (e.g., characters, setting, etc.)?	3	2	1	0

Circle the number indicating how much of the time during language and reading activity periods you spend on each of the following:

How much time do you spend having students	Lots	Some	A little	None
a. Develop sight vocabulary?	3	2	1	0
b. Name letters?	3	2	1	0
c. Find letters in words?	3	2	1	0
d. Sound out words?	3	2	1	0
e. Listen to an adult read aloud?	3	2	1	0
f. Draw pictures to illustrate a story?	3	2	1	0
g. Draw pictures and then tell a story to go with the pictures?	3	2	1	0
h. Dictate a story and then read it aloud?	3	2	1	0
i. Recite rhymes, songs, or poems?	3	2	1	0
j. Act out the events in a story they have heard?	3	2	1	0
k. Retell a story?	3	2	1	0
l. Discuss words' meaning?	3	2	1	0
m. Compare words and word parts in printed words?	3	2	1	0
n. Compare words and word parts in heard words?	3	2	1	0
o. Categorize heard words based on sound patterns?	3	2	1	0
p. Categorize printed words based on spelling patterns?	3	2	1	0
q. Write letters or words?	3	2	1	0
r. Read or look at books independently?	3	2	1	0
s. Read aloud to an adult?	3	2	1	0

Circle the letter next to the two statements that best describe how you involve parents and caregivers in their children's literacy learning.

a. I encourage parents, caregivers, or adults in the home to read to their children at home regularly.

b. I encourage parents, caregivers, or adults in the home to listen to their children read at home regularly.

c. I encourage parents, caregivers, or adults in the home to provide their children with meaningful writing activities (i.e. write notes, write grocery lists).

d. I send home notes that explain our classroom reading/literacy program. These notes explain how parents, caregivers, or adults in the home can support the program at home.

e. I invite parents, caregivers, or adults in the home and other relatives to come to school to help in the classroom.

f. I regularly send home books from my classroom library for my students to practice with their parents/caregivers.

g. I invite parents, caregivers, or adults in the home to school for special workshops on how they can support literacy at home.

Thank you for taking the time to complete this questionnaire. If you have any special observations about your classroom that you would like to provide, please add notes on an additional page and send them along with this questionnaire.

Author Note

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About CIERA

The Center for the Improvement of Early Reading Achievement (CIERA) is the national center for research on early reading and represents a consortium of educators in five universities (University of Michigan, University of Virginia, and Michigan State University with University of Southern California and University of Minnesota), teacher educators, teachers, publishers of texts, tests, and technology, professional organizations, and schools and school districts across the United States. CIERA is supported under the Educational Research and Development Centers Program, PR/Award Number R305R70004, as administered by the Office of Educational Research and Improvement, U.S. Department of Education.

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The model that underlies CIERA's efforts acknowledges many influences on children's reading acquisition. The multiple influences on children's early reading acquisition can be represented in three successive layers, each yielding an area of inquiry of the CIERA scope of work. These three areas of inquiry each present a set of persistent problems in the learning and teaching of beginning reading:

CIERA INQUIRY 1
Readers and Texts

Characteristics of readers and texts and their relationship to early reading achievement. What are the characteristics of readers and texts that have the greatest influence on early success in reading? How can children's existing knowledge and classroom environments enhance the factors that make for success?

CIERA INQUIRY 2
Home and School

Home and school effects on early reading achievment. How do the contexts of homes, communities, classrooms, and schools support high levels of reading achievement among primary-level children? How can these contexts be enhanced to ensure high levels of reading achievement for all children?

CIERA INQUIRY 3
Policy and Profession

Policy and professional effects on early reading achievement. How can new teachers be initiated into the profession and experienced teachers be provided with the knowledge and dispositions to teach young children to read well? How do policies at all levels support or detract from providing all children with access to high levels of reading instruction?

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